

ABSTRACT

A feedforward amplifier has

a first power splitter for splitting an input signal into two parts;

a first vector adjustor for adjusting the amplitude and phase of one output signal of the first power splitter;

a main amplifier for amplifying an output signal of the first vector adjustor;

a second power splitter for splitting an output signal of the main amplifier into two parts;

a first delay circuit for delaying the other output signal of the first power splitter;

a distortion detection power-combiner for synthesizing one output signal of the second power splitter and an output signal of the first delay circuit;

a second delay circuit for delaying the other output signal of the second power splitter;

a second vector adjustor for adjusting the amplitude and phase of the output signal of the distortion detection power-combiner;

an error amplifier for amplifying the output signal of the second vector adjustor;

a distortion suppression power-combiner for synthesizing the output signal of the second delay circuit and the output signal of the error amplifier; and

control means of at least stopping the operation of the error amplifier or the main amplifier depending on a predetermined condition.